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External facilitators of sustainable management education (EFSUMEs) and their role in promoting sustainable management education in higher education

Diego Vazquez-Brust and Natalia Yakovleva

INTRODUCTION

Research on sustainability in management education explores topics of pedagogy, teaching practice, and initiatives to change business management curricula to include sustainability subjects (e.g. Kurland et al., 2010; Blasco, 2012; Akriou and Bradbury-Huang, 2015; Hibbert and Cunliffe, 2015). The focus of such research is overwhelmingly centered in academic processes, academic actors and their roles, and structural conditions facilitating or constraining progress towards sustainability in higher education. However, significantly less attention has been paid to the roles that are played by external organizations promoting sustainability in higher education and research. This chapter can help readers to understand what the role of external organizations is in integrating sustainability in management and general education. A growing array of organizations, such as the United Nations Principles of Responsible Management Education (PRME), the Association for the Advancement of Sustainability in Higher Education (AASHE), the Association to Advance Collegiate Schools of Business (AACSB), the Globally Responsible Leadership Initiative (GRLI), 50+20 Management Education for the World, the Greening of Industry Network (GIN), and Leadership in Energy and Environmental Design (LEED), are involved in changing the orientation of management education by putting greater emphasis on sustainability, responsibility, and ethics (Nicholls et al., 2013; Figueiró and Raufflet, 2015). Such organizations are *external facilitators of sustainable management education (EFSUMEs)*;

they do not directly change educational contents, but they help to create and undergird structural conditions enabling such change.

Emerging research has timidly started to pay attention to one of such external facilitators for sustainable education – PRME – and its efforts to promote sustainable management education (Forray and Leigh, 2012; Burchell et al., 2015). However, there is no comprehensive conceptual mapping of what other organizations are out there facilitating and developing a multidisciplinary case for sustainability in business schools. We argue that a better understanding of these external facilitators of management sustainable education and their activities is urgently needed to move towards a pro-sustainability paradigm change in management education. Worryingly, there is not yet basic exploratory research to kick-start a research agenda conceptualizing how these organizations can accelerate change in management education that actively discusses and explores sustainability in classrooms, student work, management learning, and research. The void in research is wide, and this chapter is modest in its aims. We aim to fill a starting gap in descriptive research about EFSUMEs by exploring the following research questions: What are the major external organizations that promote sustainability in management education? What has been their progress so far? How can we distinguish between their functions? What opportunities do they have for facilitating a transition towards management education?

To this end the chapter will review initiatives developed internationally by EFSUMEs, classify types of EFSUMEs according to their roles, observe the evolution of their influence, and examine the opportunities EFSUMEs offer for transforming sustainability in management education. The chapter is based on the analysis of secondary data; we review existing literature and information available on organizations that engage with business schools and academic faculty in the field of sustainable management education.

The rest of the chapter proceeds as follows. First, it discusses the roles of external facilitators of sustainable education as accelerators of change in management education. Second, it focuses in more detail on PRME, drawing from the analysis of existing research in the field (see Alcaraz and Thiruvattal, 2010; Waddock et al., 2011; Perry and Win, 2013). Third, the chapter maps the main EFSUMEs and their activities with regard to promoting sustainability in management education. Fourth, it provides a mild critique of some existing trends in EFSUMEs, examines the challenges and opportunities for the future work of external facilitators of sustainable education in the management arena, and discusses areas for further research.

THE ROLES OF EXTERNAL FACILITATORS OF SUSTAINABLE MANAGEMENT EDUCATION

We notice that the activities of the organizations we term EFSUMEs, such as the suspended Beyond Grey Pinstripes rankings, are often mentioned in evaluations of management education (e.g. Matten and Moon, 2004; Kurland et al., 2010; Sroufe and Ramos, 2011; Lourenco, 2013), whereas analysis of the roles and functions of these organizations in embedding sustainability in management education has been lacking in the management education literature. A noticeable exception is Rands and Starik's (2009: 21–26) chapter 'The short and glorious history of sustainability in North American management education', where a section is devoted to the analysis of external organizations in the field of sustainable management education. In addition to the literature on PRME, this section draws heavily on the work by Rands and Starik (2009), which is updated and complemented with online non-academic sources, grey literature, and testimonial evidence from individuals involved with the organizations researched. Rands and Starik's (2009) review serves as an inspiration for our classification of external facilitators of sustainable education, developed herein, into four types of EFSUMEs that promote sustainability in management education in accordance with the main roles: *normative guidance*, *monitoring*, *networking*, and *resource provision*. Following a review of selected external facilitators, we confirm that most EFSUMEs cover several roles, but are commonly associated with one major role and thus were assigned into one of the developed categories.

Normative Guidance

EFSUMEs attempt to embed a commitment to sustainability in the higher education sector by seeking adherence to a set of inspiring principles. PRME is the most successful example of this type (Perry and Win, 2013). Earlier examples of initiatives that provided normative guidance include the Talloires Declaration (1990), Agenda 21 (UNCED, 1992), the CRE Copernicus Charter (1994), and the Ubuntu Declaration (WSSD, 2002) (see Table 17.1). Unlike PRME, these initiatives, though symbolic in pioneering the principles of sustainability in higher education, are considered to have failed to achieve a lasting impact on university activities (Walton, 2000; Bekessy et al., 2007). Among these early initiatives are other declarations such as the Halifax Declaration by the International Association of Universities of 1991, the Swansea Declaration by the Association of Commonwealth Universities of 1993,

and the Kyoto Declaration by the International Association of Universities of 1993 (IISD, 1996; IAU, 2010).

Insert Table 17.1 here

Monitoring

EFSUMEs provide performance ranking systems and awards on sustainability-related activities in business schools and universities across areas of teaching, research, campus sustainability, student sustainability knowledge, and so on. Their role is ‘to make performance more transparent than in the past and introduce peer pressure as a generator of change’ (Perry and Win, 2013: 52). Such organizations have been formed in various countries, notably the USA and UK, but also internationally, and encompass the Sustainability Literacy Test that aims to assess and benchmark the knowledge of university students on sustainable development (see Table 17.2).

Insert Table 17.2 here

In the USA, the three most mentioned ranking systems in the literature are: (1) the Aspen Institute’s Beyond Grey Pinstripes ranking list, now suspended, which focused on MBA programs; (2) the Sustainable Endowments Institute’s Green Report Card, which is currently suspended; and (3) Corporate Knights, which since 2014 has taken over Beyond Grey Pinstripes. Other US organizations that monitor and provide independent rank scores are the Sierra Club (Cool Schools) and the Princeton Review (Green Ratings).

In 2010, the US colleges introduced their own rating system through AASHE. The Sustainability Tracking, Assessment and Rating System, better known as STARS, has now more than 700 institutions participating. To avoid ‘survey fatigue’, the Princeton Review and the Sierra Club signed an agreement with AASHE to jointly develop survey contents and use the STARS database as the source of the Princeton Review Green Ratings and the Sierra Club Cool Schools list. The key difference between these and STARS rankings is that the STARS system is promoted as a positive evaluation of college sustainability. The colleges get a transparent evaluation of their performance, which is publicly available, but the system does not engage in publicizing poor scores for laggards, which was the strategy favored by independent organizations to put poor performers in the spotlight of public pressure.

In the UK, there is no collegiate ranking system equivalent to the STARS system. However, an independent evaluation is provided by People and Planet, a not-for-profit organization that annually produces the People and Planet University League table that ranks UK universities' ethical and environmental performance and also includes a specific section on integration of sustainability in the curriculum. These rankings are widely disseminated through a variety of platforms and publicized by a national newspaper, the *Guardian*.

The 'positive' ranking role advocated by STARS (which gives gold, silver, and bronze stars to top performers) has its UK equivalent in the Environmental Association for Universities and Colleges (EAUC). EAUC is a not-for-profit charity with a membership of over 220 universities and colleges, supporting sustainability within the UK tertiary education sector. EAUC's Green Gown Awards reward best performers in a range of categories, including achievement in the development of academic courses, skills, and capabilities relevant to sustainability (EAUC, 2015). At an international level, a recent initiative launched in the KEDGE Business School in France aims to assess the sustainability-related knowledge (knowledge in economic, social, and environmental responsibility) of higher education students in member universities under the Sustainability Literacy Test (Sustainability Literacy Test, 2014). Individual students receive scores on their multiple-choice questionnaire, which takes 30 minutes to complete; and registered higher education institutions receive all student scores and statistics of the anonymized worldwide survey. Information from the test can be used by universities to benchmark themselves against other member universities.

Networking

Networking facilitators provide platforms to build relationships, collaborations, and exchange of ideas, spread commitment, and help make that commitment more effective by giving institutions a chance to learn from each other (Starik et al., 2010; Perry and Win, 2013). Networking facilitators are shaped as platform for debate, exchange, learning, and knowledge creation on sustainable and responsible management (Sarkis et al., 2015). Most networking organizations hold conferences, seminars, and professional development workshops, but some – such as the Academy of Business in Society (ABIS) and the Globally Responsible Leadership Initiative – support and organize joint research projects involving their members.

Three networking EFSUMEs have been seen as key providers of the impetus for increased business schools' attention to environmental issues (Rands and Starik, 2009). First, the Greening of Industry Network (GIN) was created in 1991 and is the oldest sustainability

networking organization active today. Second, Business Environment Learning and Leadership (BELL) was created in 1994 and discontinued in 2010. And, finally, the Organizations and the Natural Environment (ONE) Division at the Academy of Management (AoM) was created in 1994, with its spin-off Group of Research on Organizations and the Natural Environment (GRONEN). In the last decade, ABIS and GRLI have emerged as major networking organizations with a more formal strategy to build collaboration platforms (see Table 17.3).

Insert Table 17.3 here

Resource Provision

A fourth role, shared by all external facilitators of sustainable education, is the role of *resource providers*. It involves providing assistance with course material and teaching resources in the form of the creation of pilot courses, study material, case studies, and relevant publications. Examples include Aspen Institute's CasePlace.org, a free library of cases, articles, and resources related to business sustainability, the Greening of Industry Network's vault and book series, and the now cancelled BELL archive of curriculum resources. In addition, there are numerous other resource providers from groups and organizations such as Babson College's Giving Voice to Values project and UNESCO Education for Sustainable Development (see Table 17.4).

Insert Table 17.4 here

NORMATIVE GUIDANCE EFSUMES

Amongst the organizations that provide normative guidance to business schools and other higher education institutions is the United Nations Principles for Responsible Management Education (PRME), which has a great sector significance in comparison with other initiatives that have been launched since the 1990s. This section reviews the activities of PRME, the largest and most influential global initiative that is directly linked to improving sustainability in business management and transferring these principles to management education.

Assessing the Role of PRME

The United Nations Principles for Responsible Management Education is an initiative that was launched in 2007 under the UN Global Compact. It formulates six principles (on purpose, values, method, research, partnership, and dialogue) which provide guidance for business schools to integrate sustainability and social responsibility into teaching, research, and other operations (UN PRME, 2008). Signatories are encouraged to submit annual or bi-annual reports on progress that are posted online (see Box 17.1). Through sharing information on progress (SIP) reports, business schools disseminate ideas, approaches, and experiences on changing management education; although these reports are not standardized, verified, or formally assessed they have become a fertile database for researchers interested in management education (see Adams and Petrella, 2010; Godemann et al., 2011; Blasco, 2012; Forray and Leigh, 2012).

Insert Box 17.1 here

Rasche and Escudero (2010) argue that the PRME initiative can act as a change agent in the process of putting responsible management at the strategic core of the business school curriculum. Currently, at least 500 leading business schools and management-related academic institutions from over 80 countries across the world have joined the initiative. More than a third of the Financial Times' top 100 business schools are signatories to PRME (UN PRME, 2014). Apart from general signatories there are other structures within PRME, such as working groups on various topics from anti-corruption to gender, PRME Champions, PRME regional chapters, and PRME regional meetings. The working groups aim to deepen collaboration between institutions on specific themes through networking, developing and publishing resources for the PRME community, and organizing webinars. PRME Champions was established in 2013, mirroring the formation of Global Compact LEAD, and provides leadership for responsible management education (UN PRME, 2014).

Regional chapters aim to provide a platform for dialogue at regional level and may adapt PRME principles to the local context. At the moment, there are four regional chapters established, in: Brazil; Latin America and the Caribbean; Germany, Austria, and Switzerland; and the UK and Ireland (UN PRME, 2014). For instance, the UK and Ireland Regional PRME Chapter, established in 2013, organized a conference at the University of Winchester in April 2014 to promote PRME in UK and Irish business schools. The work of all elements of the PRME structure is fairly new. However, two inspirational guides have been released

under PRME (see UN PRME, 2012, 2013), which collect the experiences of different business schools in their efforts to change their curricula, engage in research, and reflect sustainability and responsibility in other operations.

Blasco (2012: 365) argues that PRME is based on an implicit assumption that ‘management education actually does work to effect change in understanding, attitudes, and practice among learners’ and also that what is currently offered on most management education programs is not up to this task. In an interview, the head of PRME, Manuel Escudero, says that sustainability needs to be spread across the whole curriculum; ‘we may be talking about frameworks, pedagogical tools, materials, best practices . . . building deep learning, learning that impacts the way students act, feel, and think’ (Alcaraz and Thiruvattal, 2010: 548). Similarly, Akrivou and Bradbury-Huang (2015) and Hibbert and Cunliffe (2015) question how business schools can deliver sustainable and responsible management education and what epistemological and ontological approaches they can utilize.

The analysis of 100 business schools’ SIP reports under PRME, conducted by Godemann et al. (2011), reveals that business schools tend to place most emphasis on teaching as a result of engagement with the initiative. They develop new courses to address sustainability or critically revise the syllabus of individual courses. However, not all business schools try to embed sustainability issues across the entire curriculum. There is a tendency to offer sustainability-related courses at MBA level and not at undergraduate level. In addition, Godemann et al. (2011) reject the claim that business schools might sign the principles rhetorically but not change much internally. They identify some degree of change and development towards integration of sustainability into business schools. However, the extent of reflection on the implementation process in the business schools and the management of the organizational change process are underdeveloped in their reports.

In a critique on the PRME initiative, Blasco (2012) argues that implementing PRME effectively requires business schools to look beyond formal curriculum content and pay attention to implicit dimensions of the learning environment. According to Blasco (2012), an implicit dimension is a hidden curriculum that is embedded in educational experiences as opposed to the formal curriculum; it includes schools’ structuring of time, rules of conduct, assessment procedures, traditions, socialization routines, incentives, and sanctions. Hidden curriculum highlights an alignment between schools’ formal standards and a subtext communicated by school actors about ‘what really matters’.

Despite its success, Perry and Win (2013) cast a shadow on the potential of PRME as a radical change accelerator. Following an in-depth evaluation of PRME outcomes and drivers of support, they conclude:

the evidence reviewed relating to the profile of PRME participants and the responses to the survey of institutions providing progress reports suggests that PRME is gaining support because it reinforces existing trends. There is limited evidence that PRME itself is driving change. This is reflected in the motives for supporting PRME and in the overlap between support for PRME and business school accreditations. This finding does not imply that PRME is failing. (Perry and Wing, 2013: 61)

Similarly, Burchell et al.'s (2015) research on sustainability in management education in UK business schools argues that there is no significant evidence that PRME itself – or becoming a signatory to PRME – has proved to be the catalyst for change within institutions. PRME appears to play an enabling role, serving as a positive reinforcement of sustainable management education endeavors undertaken by signatory schools prior to joining the initiative. Evidence from five case study signatory schools in the UK demonstrates that PRME is utilized to legitimate and encourage processes that were already ongoing in the schools.

MAPPING OF RANKING AND NETWORKING EFSUMES

This is a short 'who is who' of the most frequently mentioned (in media and literature) networking and monitoring organizations. This is far from an exhaustive description of organizations presently operating.

Monitoring Not-for-Profit EFSUMES

The first two organizations are independent activist organizations that include monitoring activities as part of their broader remit. People and Planet is a British student activist network, and the Sierra Club is an environmental activist organization in the USA. There are other student activist networks in the USA, including Net Impact, which was founded in 1999 as a student group that aims to drive social and environmental change on campus and in graduate careers. However, Net Impact focuses on lobbying and surveying students' interests rather than monitoring and ranking higher education sustainability performance (Sroufe and

Ramos, 2011; Net Impact, 2015). The third organization, the Sustainable Endowments Institute (SEI), which issues the Sustainability Score Card, is a not-for-profit organization funded through corporate philanthropy.

People and Planet is a British student activist network founded in 1969 which organizes social campaigns on issues such as poverty, human rights, and protection of the natural environment. People and Planet trains and supports over 2000 volunteers in campaigning groups at schools, colleges, and universities. The People and Planet website estimates that they ‘empower over 20,000 young people to take positive action for social and environmental justice each year’ (People and Planet, 2014). Each year since 2001 People and Planet has released the People and Planet Green League, the only independent league table assessing the environmental and ethical performance of UK universities. It is credited by People and Planet with ‘putting climate change on the desk of every Vice-Chancellor in the UK’ (People and Planet, 2014). The Green League is published by the *Guardian*, a national British newspaper, and receives substantial media coverage. The Green League is based on self-reporting data from participating universities through an annual survey. In 2013, 143 universities provided People and Planet with information to be entered into the League table. The Green League performance indicators include the following aspects explicitly related to sustainability teaching:

coursework linked to sustainability projects within the university departments;
commitment to integrate sustainability into the curriculum in the corporate or strategic plan, teaching and learning strategy, and environmental policy;
availability of support or training made to all staff to help them integrate sustainability into the curriculum;
review and reporting process in place to monitor the integration of sustainability into the curriculum.

Since 2013, with its Green Education Declaration, People and Planet has stepped up to take a normative role and translate students’ concerns into principles for action and a public commitment by schools and colleges to:

promise to lead by example and commit to adopting carbon reduction strategies;
recognize their role as beacons of good practice and their duty to inspire positive action towards sustainable behavior among students, parents, and the community;

commit to integrating education around climate change and sustainable development across the curriculum.

The Sierra Club, founded in 1892, is one of the largest and most influential US grassroots environmental organizations, with 2.4 million members and 64 national chapters. In its own words, ‘successes range from protecting millions of acres of wilderness to helping pass the Clean Air Act, Clean Water Act, and Endangered Species Act. More recently, we’ve made history by leading the charge to move away from the dirty fossil fuels that cause climate disruption and toward a clean energy economy’ (Sierra Club, 2014).

Each year since 2005, *Sierra*, the official magazine of the Sierra Club, scores the performance of the USA’s most environmentally responsible colleges and universities in its annual Cool Schools issue. The list and the stories surrounding it are further disseminated, with coverage in the *New York Times*, *CNN*, *NPR*, and *Huffington Post* among others. The Cool Schools website attracts more than 1 million page views; 96 universities participated in the Cool Schools ranking in 2013 (Sierra Club, 2014). The Cool Schools ranking was surrounded by controversy in 2010 when Ithaca College publicized a letter to the editors of *Sierra Magazine*, declining to participate again in the Cool Schools survey because it found the process too time-consuming and opaque, and of questionable value (Carlson, 2010).

Criticisms prompted reforms in the evaluation process, making it more transparent while reducing ‘survey fatigue’ with an agreement to share data with other ranking institutions. The aim of this initiative was to encourage participation from a broader range of institutions while reducing and streamlining the amount of time university staff spent collecting sustainability data and completing related surveys (Princeton Review, 2014). To this end, the Princeton Review, AASHE, *Sierra Magazine*, and the Sustainable Endowments Institute jointly developed the Campus Sustainability Data Collector (CSDC). The CSDC is based on AASHE’s STARS Reporting Tool and is free of charge for all schools that wish to submit data to these organizations in one single survey. Institutions can now submit data in one place using either the STARS 1.2 or 2.0 Reporting Tools, available on the AASHE website. The new version of STARS offers a basic level of access at no cost to institutions.

The Sustainable Endowments Institute is a US non-profit organization founded in 2005 as a special project of Rockefeller Philanthropy Advisors. It engages in research and education to advance sustainability in higher education campus operations and practices. SEI’s College Sustainability Report Card, the so-called Green Report Card, was first released in 2006, making it the first sustainability ranking survey inside higher education. SEI

supplemented the data reported by universities in these surveys with other publicly available information to assess a grade, from an F to an A, for each institution based on the total number of points earned for each category.

The Green Report Card had a remarkably high media-profile ranking, with coverage in the *New York Times*, *Forbes*, and *Business Week*, as well as in grassroots movement websites. The Green Report Card's popularity with the media was probably helped by SEI's penchant for publicizing lackluster performances, awarding C, D, and F scores to slackers (Carlson, 2010). By 2010, 300 schools in the USA and Canada had participated in the survey, but participation started to decrease after the STARS assessment system was launched in 2010 and more institutions opted out from other surveys, particularly those perceived as potentially damaging to public image (Carlson, 2010).

The Report Card was indefinitely suspended on 30 March 2012. Mark Orlowski, founder and executive director of the Sustainable Endowments Institute, declared through SEI webpages:

We're suspending work on the Green Report Card in order to channel our efforts to helping decision-makers utilize green revolving funds to cut costs and reduce greenhouse gas emissions . . . The Institute was able to publish the Green Report Card thanks to the generous support of many foundations and individual donors. Now, funders are giving preference to the proactive mission of the Billion Dollar Green Challenge, thus leaving limited resources to produce a 2012 edition of the Report Card. (SEI, 2012)

The Aspen Institute Centre for Business Education (Aspen CBE) is a not-for-profit organization founded in 1950 by a chairman of the Container Corporation of America who was inspired by the landscape of Aspen resort in Colorado to create executive seminars promoting business engagement with culture and nature preservation (Rands and Starik, 2009). It is funded by corporate philanthropy and aims to 'help business educators incorporate issues of social and environmental stewardship into teaching and research by offering targeted resources, networks, and a platform to share cutting edge practice among peers' (Aspen Institute, 2014).

As part of the Aspen Institute Business and Society Program, Aspen CBE has close ties with 150 MBA programs in 28 countries. Aspen CBE projects include Beyond Grey Pinstripes (BGP), Faculty Pioneer Awards, CasePlace.org, and the Aspen MBA Case

Competition. CasePlace.org was the first open access resource with teaching material and cases made available for business school faculty to help design business management curricula with sustainability content (Sroufe and Ramos, 2011). CasePlace.org contains downloadable course syllabi, research, and practices from each of 150 schools linked to Aspen CBE, also available to potential MBA students and corporate actors.

Beyond Grey Pinstripes was an independent, biennial survey specifically targeted to assess how academic institutions prepare students to meet the business challenges of tomorrow. Every two years BGP listed the global top 100 best performers. The rankings of accredited schools were based on Aspen CBE's evaluation of submitted syllabi (required and elective courses on social and environmental impact) and research citations on relevant topics (Sroufe and Ramos, 2011). Aspen CBE also has a networking role, with its events and seminars attracting over 1000 participants each year (Aspen Institute, 2014).

Arguably, Aspen Institute has been a key catalyst for change towards sustainable management education. Rands and Starik (2009: 25) asserted that 'the existence of BGP has more than likely increased the salience of sustainability issues within business academia'. Both the Faulty Pioneer's awards and – particularly – the Beyond Grey Pinstripes ranking instilled low level competition between universities to incorporate environmental and ethics issues in their agenda (Rands and Starik, 2009). At the same time, CasePlace.org stimulated collaboration and integration of content through the transparent sharing of resources (Sroufe and Ramos, 2011).

Notwithstanding apparent success, in spring 2012 the Aspen Institute announced a suspension of its MBA ranking. As in the case of SEI, the suspension seems to be the result of high profile universities' and corporate philanthropy decisions to endorse STARS and its 'positive strategy' at the expense of other independent reviews. The BGP suspension followed the refusal of more than 20 top schools to participate in the 2011 survey (including five of the top ten US business schools, such as MIT Sloan School of Management, Dartmouth Tuck School of Business, Duke University's Fuqua School of Business, Harvard Business School, and the University of Chicago Booth School of Business). The withdrawal of such key players was likely to have a domino effect on other schools' commitment.

Poets and Quants (2012), a website covering top business schools and also providing MBA rankings, suggests two major reasons why business schools opted out of the BGP ranking system. First, the ranking failed to accurately reflect schools' commitment to social and environmental issues. BGP did not account for the extracurricular activities of relevant institutes and centers or joint degrees and specializations (although Aspen requested this

information, it was not weighed in the rankings). Second, the schools considered that completing the required survey was extremely time-consuming and required many resources. For instance, it took Tuck School of Business on average three months to compile the data required (Poets and Quants, 2012).

However, in a letter to *Bloomberg Businessweek*, the Aspen Institute alleged that many factors contributed to a decision to suspend the ranking and that schools dropping out played a small role. The deputy director of the institute's Business and Society Program wrote:

In making our decision, we spoke with many constituents at participating schools and others and took multiple inputs into account. We have extensive and ongoing relationships with business schools around the world, including many that have elected over the years not to participate in the Beyond Grey Pinstripes data-collection and ranking. I would say that schools that opted out were not a major factor in our final decision. (Di Meglio, 2012)

Instead, the main factor leading to the suspension was that the ranking had lost its relevancy and lacked the meaning it had when sustainability issues were a novelty in schools and society. Nonetheless, the Aspen Institute claims that its initiative was a success and became a baseline in many educational programs across the globe (Di Meglio, 2012).

The trend for the future seems to be in reinforcement of Aspen's roles in resource provision and networking:

First, we will continue to research and spotlight curriculum and teaching at the intersection of business and society, targeting topics and disciplines we consider to be the most critical and strategic to systemic change. Second, we will continue to offer a web-based platform to feature new, important work in MBA programs that builds on the Pinstripes database. Third, we will continue to illuminate the work of pioneering faculty and to connect them with their peers. (Walter Isaacson, Aspen CEO, cited in Aspen Institute, 2014)

The suspension of BGP and the cancellation of SEI's Sustainability Report Card mean that not-for-profit US institutions financed through corporate philanthropy no longer monitor sustainability in higher institutions.

The Association for the Advancement of Sustainability in Higher Education was founded in 2005 to help coordinate and strengthen campus sustainability efforts at regional and national levels, and to serve as the first North American professional association for those interested in advancing campus sustainability. It also accepts international members. Membership fees range from \$140 for institutions in the least developed countries to \$1935 for US or Canadian institutions with over 30,000 full-time equivalent student enrolment.

The AASHE's Sustainability Tracking, Assessment and Rating System was launched in 2010 and already has 664 registered institutions participating (the largest number of organizations participating in higher education rankings). STARS is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance in four areas: academic (curriculum and research); planning and administration; operation; and engagement. It was developed by a commission of sustainability experts through an extensive, collaborative process. As compared to UN PRME, which provides normative guidance and sharing of information on progress, the STARS initiative measures participating schools' sustainability performance.

STARS evaluation is valid for three years, a timeline designed to ease pressure of data collection. According to Carlson (2010), STARS was created in part to enable colleges to compare their progress with that of their peers, but also to compete with, and eventually replace, other sustainability ratings. AASHE awards gold, silver, and bronze stars to high performing institutions. As mentioned before, AASHE, the Princeton Review, the *Sierra Magazine*, and the Sustainable Endowments Institute jointly developed the Campus Sustainability Data Collector, which significantly reduced the burden of collecting data and completing the survey in academic staff. AASHE is the only organization that currently covers monitoring, networking, and resource provider roles. The AASHE annual conference and expo is the world's largest conference in sustainability in higher education (AASHE, 2014). Other professional development activities include workshops, webinars, and discussion forums.

The Environmental Association for Universities and Colleges, founded in 1996, is a British non-profit organization (a charity) with membership of over 220 universities and colleges, supporting sustainability within the UK tertiary education sector. Membership fees range from £462 to £1181. The EAUC Green Gown Awards reward best performers in a range of categories, including achievement in the development of academic courses, skills, and capabilities relevant to sustainability. The Green Gown Awards have become established as the most prestigious recognition of best practice within the tertiary education sector. As

many as 62 institutions applied in the UK in 2014. The awards have expanded to include Australasia. EAUC hosts annual conferences and provides teaching resources which have been available online since the launch in 2012 of the Sustainability Exchange. The EAUC has uploaded all the content from its valuable Resource Bank, combining resources and experience from 23 of the country's top sustainable development and tertiary education bodies (EAUC, 2015).

Monitoring Private EFSUMEs (Consultants)

Princeton Review Green Ratings, which was founded in 1981, is a private company providing higher education students with services helping students choose and get into colleges. Such services include test-preparation services, tutoring and admissions resources, online courses and resources, and print and digital books. The Princeton Review has a network of 5000 teachers and tutors in the USA, Canada, and international franchises. Since 2008 the company has released a Green Rating, which scores the environmental commitment of schools on a scale from 60 to 99.

Organizations receiving the highest score are named to the Green Ratings Honor Roll. In 2013 the ratings scored 832 colleges, with 22 included on the Honor Roll. A key element in the assessment is the curriculum: 'how well a school is preparing students for employment in the clean-energy economy of the 21st century as well as for citizenship in a world now defined by environmental concerns and opportunities' (Princeton Review, 2014). The Princeton Review is one of the organizations involved in the Campus Sustainability Data Collector. The questions it contributes to this survey instrument are created in consultation with ecoAmerica, a research- and partnership-based environmental non-profit organization that allocated an expert committee to design this comprehensive ranking system. It includes questions on the sustainability curriculum such as: Does the school have an environmental studies major, minor, or concentration? Do the school's students graduate from programs that include sustainability as a required learning outcome or include multiple sustainability learning outcomes?

Corporate Knights (CK) is a media, research, and financial information products social enterprise based in Toronto, Canada. CK's aim is to promote an economic system where prices fully incorporate social, economic, and ecological costs and benefits, and market participants are clearly aware of the consequences of their actions. The company calls such a system 'clean capitalism'. Founded in 2002, Corporate Knights Inc. has two subsidiaries: CK Media, which includes the magazine *Corporate Knights*, and CK Capital,

which produces corporate rankings, research reports, and financial products based on corporate sustainability performance (Corporate Knights, 2014).

CK's most famous output is the Global 100 clean capitalism ranking, which has been announced each year since 2005 during the World Economic Forum in Davos. Since 2003 CK media had been releasing the Knight Schools survey: an annual ranking of sustainable Canadian MBA programs. CK decided to expand the ranking globally following the Aspen Institute's decision to suspend BGP. The new Global Green MBA survey also includes a list of the top ten smallest programs, which tend to be placed at a disadvantage in surveys (as a case in point, the student participation category rewards organizations with larger numbers of students). Although modelled on BGP, the Global Green MBA methodology is set to develop new categories to address some of the criticisms received by BGP. New categories included external guest speakers, orientation activities, internships and consulting, community involvement, institutes and centers, faculty chairs, and faculty research.¹ Two noteworthy additions are student-led initiatives and integration of sustainability in the curriculum in a systemic manner (Corporate Knights, 2014).

Although the Global Green MBA evaluation methodology is transparent and clearly explained in the Global Green MBA website, CK is more opaque regarding the number of schools participating in the survey. The section titled 'Methodology: outreach and eligibility' explains that CK 'researchers sent an invitation for participation to over 250 of the top ranked schools around the world'. In turn, in the FAQ section, in response to a question on how many schools have been contacted by the survey, it said that 'the 190 top institutions from 29 countries around the world have been approached'. Adding to this contradiction, there is no indication of how many of the institutions approached actually completed the survey. Only the names of those in the top 30 and the ten smallest MBA programs are disclosed.

Networking EFSUMEs

There is a plethora of networking organizations with links to sustainability in management education, and many new players have emerged in the last few years. We focus on some of the key organizations selected on the basis of their historical significance, current relevance, or potential impact. Since all these organizations are not-for-profit, we use a chronological approach to present them, starting with the oldest, the Greening of Industry Network, which is in its third decade of existence. The section also mentions 50+20, but we believe that, because of its relevance, potential impact, and organizational complexity, this specific initiative should be a focus of separate analysis.

The Greening of Industry Network was founded in 1991 as a forum and community of ideas where European and North American scholars could meet and exchange ideas about research and practice on issues of industry, environment, and society with policy-makers, business, and non-governmental representatives. GIN's initial goal was to change the way knowledge leads to action, by connecting people through work and ideas across professions and national boundaries (Sarkis et al., 2015). The network is a voluntary association, with the single entry requirement for organizations to have a willingness to collaborate. At the same time, it is an action arena, producing international open meetings, publications, and communication vehicles and influencing the work of other institutions (Sarkis et al., 2015). Between 1991 and 2015, GIN organized 33 conferences in 15 different countries alternating between Europe, North America, and Asia.

GIN is considered to be the most practice-focused of pioneering networking organizations and represented a foundational 'impetus for increased attention to environmental issues' (Rands and Starik, 2009: 24). GIN conferences have regularly included professional workshops and sessions focused on sustainability in business education. GIN's mission states that it develops knowledge and transforms practice to accelerate progress toward a sustainable society (GIN, 2014). GIN conferences promote the triple helix approach of strong collaboration between three parties – academia, industry, and government – as an accelerator for innovation and change in sustainable practice. The triple helix approach is seen as particularly beneficial to triggering change, because perspectives from industry leaders, government members, and academics create a bigger picture for decision-making (Sarkis and Gollagher, 2008).

Public agencies such as the US Environmental Protection Agency, the US Asia Environmental Partnership (a project of USAID), the Environment and Research Directorates of the European Union, and the Dutch Environment Ministry have sponsored the network and use it to access knowledge and develop new approaches (Sarkis et al., 2015). The network has facilitated a development of joint research proposals for the Environment and Climate Change program of the Fifth Framework of the European Union (DGXII). The Organizations and the Natural Environment (ONE) Division of the Academy of Management can trace some of its origins to early GIN conferences (Sarkis et al., 2015).

The network is also a provider of resources, with more than 20 books and special journal issues published following GIN conferences. These outputs, case studies, and curricula are publicly available in the GIN's electronic repository. Almost from its inception, GIN has had a presence on the Internet; the electronic repository of GIN materials has been

an important resource for many stakeholders (Sarkis, 2007). Since 2011, GIN has had an official relationship with Springer Publishing, which has sponsored a book series titled Greening of Industry Networks Studies to further promote development of knowledge in industry and sustainability interrelations.

GIN's explicit aims, longevity, and trajectory as an accelerator of change make it an interesting historical case for further research to improve our understanding of processes that can help change the future of education. However, GIN as an organization is experiencing challenges in maintaining academic interest and participation and thus needs to innovate and distinguish itself from other similar organizations. Some suggest that GIN should seek to disseminate knowledge outside of core academic circles of interested parties and go beyond 'preaching to the chorus' by engaging more with businesses and other organizations (Sarkis et al., 2015). Finally, GIN could also take on a more normative role in addition to GIN's mission of creating a space for interdisciplinary deliberation and dialogue (communication with Kurt Fisher, GIN co-founder).

Organizations and the Natural Environment (ONE) is a division at the Academy of Management that is dedicated to the advancement of research, teaching, and service in the area of relationships between organizations and the natural environment. It became a division of the AoM in 2007; however, the ONE listserv began as early as 1992. ONE began forming as an interest group in 1994, closely related to membership of the Social Issues in Management (SIM) division of AoM. In 1995, there was a formal ONE program of papers at AoM. The division maintains a prize for best paper at AoM, a blog, and a newsletter on the ONE listserv (ONE, 2015).

The objectives of ONE are:

- to promote scholarship on the relevant topics among its members and to provide a channel for such scholarship via Academy paper sessions and symposia;
- to develop a network of scholars interested in these topics through electronic media and social gatherings at the Academy annual meetings;
- to promote environmental management policies and practices for the Academy itself by educating other Academy members as appropriate;
- to encourage scholars and students in related business disciplines and in related non-business disciplines (e.g. environmental sciences, environmental engineering, environmental law, and environmental ethics) to participate in the Academy and to work with practitioners in these fields to promote environmentally sensitive policies and practices worldwide. (ONE, 2015)

The Academy of Business in Society (ABIS, formerly known as EABIS) was launched at INSEAD in 2002 with support from several leading European business schools (e.g. INSEAD, IMD, London, ESADE, IESE, Copenhagen, Warwick, Vlerick, Ashridge, Cranfield, and Bocconi) and in partnership with IBM, Microsoft, Johnson & Johnson, Unilever, and Shell. According to ABIS's website, the initiative was 'driven by a shared belief that challenges linked to globalization and sustainable development required new management skills, mindsets and capabilities. In order to respond to this need and to support research to underpin better education and learning, ABIS developed a stronger role in the arena' (ABIS, 2014).

Today, ABIS is a global network of over 130 companies and academic institutions that pay a membership fee ranging from €1000 to €3000. The ABIS secretariat supports its members by providing access to the network's expertise and resources. ABIS promotes knowledge-based transformation through corporate-academic collaboration and leverages its members' resources by coordinating collaborative projects and events.

One of the ABIS flagship projects is called Practical Wisdom for Sustainable Management, a collaboration with Yale University. It 'aims at overcoming the often decried normative void in management education' and so far has organized eight international conferences with approximately 400–500 scientists and four *Journal of Management Development* special issues. These activities were meant to improve understanding of the potential role of the major spiritual and religious traditions for providing content for teaching 'practical wisdom' in business school classroom. Since 2013 ABIS has developed an international network devoted to the topic. It organizes international staff and student exchange activities, spring schools and summer schools, and paper and case study collection in order to provide educational materials for teaching 'practical wisdom' in business school classrooms.

The Group for Research on Organizations and the Natural Environment is an open and flexible network that aims to promote and reinforce interaction between international scholars (initially North American and European scholars) working on issues around organizations and the natural environment that was established in 2003. In a way, GRONEN is a spin-off of traditional activities of the ONE Division of AoM. After ten years of informal and effective working a broader group of scholars formally founded the GRONEN association in Zurich in 2013. GRONEN provides resources that can be used in management education. It is associated with the *Organizations and Natural Environment Journal* and has

series of books sponsored by Cambridge University Press. GRONEN's main outcome is its conferences. Since 2003 the network has organized five academic conferences held outside the traditional North American locations. These conferences have developed an open network of researchers. GRONEN has been so far almost purely research oriented, and its conferences do not have special sessions or professional development workshops devoted to management education for sustainability.

In its own evaluation, 'after multiple successful GRONEN international conferences, the network has helped to create solid academic and personal bridges between diverse international scholars and has particularly contributed to better mutual understanding between North American and European scholars in this field. Now GRONEN aims to reach a global scale including scholars from all over the world and extend our activities to offer multiple opportunities for our members and the research community' (GRONEN, 2014).

The Globally Responsible Leadership Initiative is a global network of companies, business schools, and other learning institutions aiming to 'develop a next generation of globally responsible leaders' through collective and individual actions. Founded in 2004 by the UN Global Compact, today it consists of 51 partners (members), which meet twice per year in general assemblies hosted by a partner (GRLI, 2014).

GRLI defines itself as 'a partner organization, a foundation, an advanced laboratory and a movement'. GRLI promotes and refines the concept of global responsibility. It also inspired the creation of two new academic journals: the *Journal of Global Responsibility* and the *Sustainability, Accounting, Management and Policy Journal*. Current projects and activities include faculty development, the establishment of a worldwide network of local councils for leadership, business summits, academic conferences, research into the corporation of the twenty-first century, a young ambassadors program, and blueprinting the business school of the twenty-first century (50+20 Management Education for the World, 2015). GRLI is a co-convenor, a member of the steering committee, and an active supporter of the UN PRME (GRLI, 2014).

Its flagship normative project is Reframing the Purpose of Management Education, whose ultimate aim is to catalyze proactive discussion questioning the purpose of business schools and the necessity of enlarging it to include 'not only training professional managers but also educating responsible leaders'. An example of GRLI's role as a resource provider is the development of new approaches to learning within its partner organizations, for example Petrobras's *Globally Responsible Leadership Manual* and in-company training program, new

curricula at Centrum Graduate Business School in Peru, and the whole person learning concept (GRLI, 2014).

More recently GRLI has been convening and facilitating so-called management education innovation cohorts, which are global peer-based laboratories for the implementation of the 50+20 vision, involving mostly deans, directors, and senior faculty working together over the course of a year (50+20 Management Education for the World, 2015). Rio 50+20 is a joint effort of three professional networks (UN PRME, GRLI, and the World Business School Council for Sustainable Business) concerned with the future of management education.

The Network for Business Sustainability (NBS) was established in 2005 in Canada and has recently opened subsidiary networks in South Africa and Chile (NBS, 2015). NBS Canada is housed in the Ivey Business School in London, Canada. It works with various academic, business, and industry associations to promote research on business sustainability. The network operates under three broad objectives: (1) to build a community between researchers, managers, policy-makers, and students; (2) to exchange knowledge about sustainable business practices; and (3) to spur innovation with a collaborative approach (NBS, 2015). The network aims to translate and disseminate academic research into practical resources for businesses. It produces annual reports and reviews of sustainability challenges under various themes such as climate change, communities, and global supply chains. NBS South Africa aims to address sustainability issues in a regional context to build business and academic resources (NBS, 2015).

The World Business School Council for Sustainable Business (WBSCSB) is a sustainability think-tank and platform of action for business schools. It contributes to making businesses sustainable through research, education, and engagement. It was created in 2010 by the annual meeting of the AoM in Montreal. The WBSCSB has outlined three areas of activities: (1) research must address the pressing sustainability issues; (2) education must embrace sustainability as an integrated function of business; and (3) business scholars and educators should use their competence and reputation to engage in public dialogue and activities to further sustainable development (WBSCSB, 2011). Although the WBSCSB was launched with a considerably high profile and is one of the founding partners of the 50+20 Management Education for the World initiative, it seems to be currently inactive (the website has not been updated since 2011) (WBSCSB, 2011).

LEAP! (Leverage, Expand, Accelerate, and Partner) is a learning, teaching, and researching network of participants from universities around the world established in 2014. It

aims ‘to inspire and prepare change accelerators by developing leaders with a sustainability mindset to take responsible actions’ (Rimanoczy, 2014). The initiative works by calling participants to follow three steps: (1) develop awareness; (2) explore paradigms – the values and emotions that have led us into an unsustainable mindset – and develop a new paradigm that unites us with nature; and (3) identify and work on a project to make a difference (Rimanoczy, 2014). In 2014, the network consisted of 30 participants from universities around the world.

The initiative calls the participants to learn and build upon academic research and develop educational programs with a ‘sustainability mindset’. It calls on participants to share, co-create, and adapt the curriculum using teaching and learning methodologies, resources, ideas, and experiences. The network aims to engage in activities of the AoM through academic research and dissemination (Rimanoczy, 2014).

CONCLUSIONS

This chapter aimed to help readers identify what the role of external organizations is in integrating sustainability in management and general education. A better understanding of such roles will help us conceptualize what academic societies can do to serve as more effective change accelerators and further identify distinctive aspects of higher education institutions that foster and impede change. The chapter reviewed major organizations that promote sustainability in management education, mostly originating in Western countries such as the USA and UK, with the focus on business management courses such as MBAs. We termed such organizations external facilitators of sustainable management education (EFSUMEs). We observed that EFSUMEs engage in four major activities: guiding, monitoring, networking, and resourcing business schools, universities, and other educational institutions. On the basis of that, we proposed a classification of EFSUMEs into four types following four major facilitating roles of: normative guidance; monitoring; networking; and resource provision. Most organizations cover more than one role, although they are commonly associated with one. The fourth critical role in promoting sustainability in management education by providing resources to build sustainability curricula is covered by almost all the organizations reviewed.

The activities of organizations that provide normative guidance, monitoring, and networking opportunities have significantly increased the attention given to sustainability in business schools in the past two decades (Rands and Starik, 2009). It can be linked to the

overarching initiative launched at an international level, the UN Decade of Education for Sustainable Development (2005–2014) (UNESCO, 2005). There was a significant change in the landscape of EFSUMEs in the five years from 2010. Some players disappeared (e.g. BELL), some organizations suspended their monitoring activities (e.g. the Aspen Institute's Beyond Grey Pinstripes, and the Sustainability Endowments Institute's Green Report Card), and some came under internal revision (e.g. the Greening of Industry Network). Additionally, some new players emerged, most notably AASHE and the STARS rating system, the 50+20 initiative, GRONEN, and the Sustainability Literacy Test.

Organizations that monitor the implementation of sustainability in business schools and universities have undergone the most significant changes in the last few years. Popular ranking systems such as Corporate Knights, AASHE, EAUC, and the Princeton Review share a 'soft monitoring' approach based on voluntary disclosure, awards, positive rankings, and 'no shaming'. In the US, the few remaining monitoring organizations with open disclosure of laggards and poor performers (such as the Sierra Club) face a dwindling number of academic participants and withdrawal of support. The dominant normative guidance organization, UN PRME, is criticized for the lack of mechanisms to differentiate free-riders joining in to benefit from green credentials without implementing substantive change (Perry and Win, 2013).

Since radical change towards a dominant sustainability oriented paradigm requires collective action, the external monitoring role is essential (Lourenco, 2013), and voluntary and 'soft approaches' to monitoring do not fulfil the requirements of transparency and universality needed to be conducive to effective action (Ostrom, 2002). Voluntary action without compulsory monitoring and disclosure is less effective than government enforced action (Walton, 2000), and this is likely to be the main challenge facing initiatives such as 50+20. Positive rankings and positive knowledge (an increasingly dominant feature of the reviewed initiatives) alone will not deliver radical change. As Marshall et al. (2010: 484) vehemently argue, if we want to have a paradigm change 'We need to question the dominance of positive knowledge, benign case methodologies . . . we need to question the paucity of negative knowledge.'

The overall challenge is how to avoid oppression of diversity and dilution of core sustainability values in the flow of traditional business education thinking in the process of embedding sustainability in management education. Indeed, authors note that business schools are market driven, their research and education are narrow and not relevant to pressing economic, social, and environmental challenges, and typical business schools are

satisfied with the status quo (Marshall et al., 2010; Dyllick, 2015). The dominant paradigm relegates true integration of sustainability to particular programs and contexts (Lourenco, 2013). Marshall et al. (2010) argue that business schools are vulnerable to losing their competitive edge because they are trapped in a paradigm that fails to embrace the need for sustainability teaching. Paradigm change is normally triggered by external facilitators and pressures. For these reasons the roles of external facilitators of sustainable education are irreplaceable. However, can dominant paradigms be changed if EFSUMEs' successful initiatives such as PRME (or STARS, or GRONEN) are gaining support precisely because they reinforce existing trends? The resistance of academic societies to the dissemination of negative knowledge is therefore a major impediment to paradigm change. To accelerate changes, sustainability oriented members of academic societies – particularly those leading sustainable transformations – should challenge the increasing dominance of positive knowledge and actively support monitoring organizations providing negative knowledge.

In terms of networking EFSUMEs, there seems to be a tendency for management conferences to become more specialized and research focused and less interdisciplinary and practice oriented. Again, this trend is aligned with academic pressures to 'publish or perish' but works against the potential of networking organizations as change accelerators. To accelerate change, management conferences should be encouraged to engage with local management audiences and local organizations such as schools, businesses, and non-governmental organizations (Sarkis et al., 2015). This is just one way of assuming a more active and visible role in disseminating management knowledge and collaborating with management practitioners. To this end, further research could focus on how to support collaboration between business schools and businesses in pursuit of sustainability.

Further research on monitoring EFSUMEs could explore factors that contributed to the uptake and impact of monitoring schemes on the performance and motivation of members. Through surveying participants, future empirical studies could explore the drivers, barriers, and accomplishments of ranking initiatives in bringing changes to educational programs and student performance and experiences. Indeed, as some monitoring schemes have folded, it would be interesting to investigate failures and potential obstacles in advancing sustainability in management education. As monitoring activities are taking further soft approaches, future studies could examine whether current monitoring schemes effectively accelerate change or reinforce existing trends in self-reporting. Studying reports of academic institutions can shed light on what it is important for business schools to communicate to external audiences in terms of their sustainability activities.

Further research could explore to what extent EFSUMEs promote curriculum development, improvement of student experiences, organizational change in the higher education sector, and professional development of management academics. Research could examine the perceptions and roles of academics in changing sustainability in management education. Changes in student learning and student or graduate experiences of programs that have been praised for their sustainability credentials are another avenue of research. Further studies on the process effectiveness of networking EFSUMEs can lead to identification of innovative approaches to collaboration, partnerships, and action in the area of education for sustainable development.

NOTE

1.Except for the last two items, Aspen collected information in all these categories. However, BGP did not use it when calculating scores, which goes a long way to explain the frustration of universities that spent valuable time collecting information that wasn't valued.

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TABLES

Table 1 Declarations on Education for Sustainable Development

Declaration, Year	Website	Brief Description
Talloires Declaration, 1990	http://www.ulsf.org/programs_talloires.html	Signed by over 400 college and university presidents and chancellors worldwide, it supports sustainability as a critical focus of teaching, research, operations and outreach in higher education through publications, research, and assessment (Talloires Declaration, 1990).
Halifax Declaration, 1991	http://www.iau-aiu.net/content/rtf/sd_dhalifax.rtf	Put together by presidents and senior representatives of 33 universities, it discusses the role of universities regarding the environment and development. It proposes <i>Creating a Common Future: An Action Plan for Universities</i> (Halifax Declaration, 1991).
Agenda 21, 1992	http://www.un.org/esa/sustdev/documents/agenda21/english/Agenda21.pdf	<i>Chapter 36 – Promoting Education, Public Awareness and Training</i> of Agenda 21 sets out proposals related to sectoral issues by reorienting education towards sustainable development, increasing public awareness and promoting training for sustainable development (UNCED, 1992).
Swansea Declaration, 1993	http://archive.www.iau-aiu.net/sd/rtf/sd_dswansea.rtf	In conclusion to the Association of Commonwealth Universities 15th conference in Swansea, Wales, leaders from over 400 universities put together a declaration focused on people and the environment, and how they can respond to this challenge (Association of Commonwealth Universities, 1993).
International Association of Universities Kyoto Declaration, 1993	http://archive.www.iau-aiu.net/sd/sd_dkyoto.html	Urges universities to seek, establish and disseminate a clearer understanding of sustainable development and encourage more appropriate sustainable development principles and practices at local, national and global levels (IAU, 1993).
Copernicus - the University Charter for Sustainable Development, Geneva, 1994	https://www.iisd.org/education/declarat/coper.htm	COPERNICUS (CO-operation Programme in Europe for Research on Nature and Industry through Coordinated University Studies) is a programme of CRE (Conference of European Rectors) designed to bring together universities and other concerned sectors to promote a better understanding of interaction between man and the environment and to collaborate on common environmental issues (CRE Copernicus, 1994).
Ubuntu Declaration, 2002	http://www.icsu.org/publications/other-key-icsu-statements/ubuntu-declaration-on-education-science-and-technology-for-sustainable-development	The declaration issued at the World Summit on Sustainable Development in Johannesburg by world's global educational organizations and scientific academies. The declaration aims to work on curriculum development, North-South networking, strategic educational planning and policy-making and capacity building in scientific research and learning (WSSD, 2002).

Table 2 Monitoring Organizations on Sustainability in Education

Monitoring Organization, Geographical Coverage	Website	Brief Description
Beyond Grey Pinstripes, US	http://www.aspeninstitute.org/policy-work/business-society/beyond-grey-pinstripes-mba-survey	Between 2001 and 2012, the Aspen Institute Business & Society Program published this biennial research survey and alternative ranking of business schools. It celebrated innovative full-time MBA programs concerned with social and environmental stewardship in the curriculum (Aspen Institute, 2014).
College Sustainability Report Card, US	http://www.greenreportcard.org	Suspended in 2012, the initiative led by the Sustainable Endowments Institute, it pioneered the first evaluations of campus and endowment sustainability programs starting in 2007. It provides access to in-depth data collected for five editions over five years (SEI, 2012).
Global 100 Sustainable MBA, International (by Corporate Knights)	http://www.corporateknights.com/reports/2015-global-sustainable-mba/	Annual ranking of Sustainable MBA (in 2015, 13 th edition) from 100 schools from the 2015 Financial Times Global MBA Ranking and other business schools due to their track record in business sustainability education. Schools are assessed on curriculum, institutes and centers and faculty research from publicly available sources (Corporate Knights, 2014).
STARS database, US	https://stars.aashe.org/institutions/participants-and-reports/?sort=rating	The Sustainability Tracking, Assessment & Rating System™ (STARS) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. Awards are gold, silver and bronze to participating institutions (AASHE, 2014).
Sierra Club Cool Schools, US	http://www.sierraclub.org/sierra/cool-schools-2014	Sierra Club puts together a ranking of environmentally responsible universities. Based on a voluntary survey of universities, the ranking puts together information about sustainability practices in 170 universities in the US (Sierra Club, 2014).
Princeton Review Green Rating, US	http://www.princetonreview.com/press/green-guide/colleges-ratings	Developed in 2007, it published 7 th report in 2014 on 861 US colleges, measuring sustainability-related practices and policies of schools based on institutional survey. The Ratings awards scores to schools between 60 and 99 (Princeton Review, 2012)..
People & Planet University League, UK	https://peopleandplanet.org/university-league	Based on the survey of universities under 13 topics, the League ranks UK universities in their efforts on environmental matters. An expert group accesses university performance according to a unique methodology and awards degree classifications (People & Planet, 2014).
Green Gown Awards, UK	http://www.eauc.org.uk/green_gown_awards	Established in 2004 and administrated by the Environmental Association for Universities and Colleges (EAUC), the Awards recognize best practice within further and higher education in sustainable development area (EAUC, 2015).
Sustainability Literacy Test, International	http://www.sulite.org/en/sustainability_home	Led by higher education institutions to assess and verify the sustainability literacy of their students when they graduate. It assesses a minimum level of knowledge in economic, social and environmental responsibility applicable to any kind of tertiary-level course (Sustainability Literacy Test, 2014).

Table 3 Networking Organizations for Sustainable Management Education and Research

Networking Organizations	Website	Brief Description
ABIS (Academy of Business in Society)	http://www.abis-global.org/	A global network of over 130 companies and academic institutions whose expertise, commitment and resources are leveraged to invest in a more sustainable future for business in society through collaborative research, education, thought leadership, policy insights and business acumen (ABIS, 2014).
BELL (Business Environment Learning and Leadership)	http://www.wri.org/our-work/project/bell-business-environment-learning-and-leadership	Currently inactive, this World Resource Institute's initiative worked with educators, researchers and managers to generate new knowledge for management strategies and techniques and educational programs.
GIN (Greening of Industry Network)	http://www.greeningofindustry.org/	An international network of professionals from research, education, business, government and civil society organizations, focusing on issues of industrial development, environment and society, dedicated to building a sustainable future (GIN, 2014).
GRLI (Global Responsible Leadership Initiative)	http://www.grli.org/	Established in 2004 by a group individuals from 21 companies and business schools, the initiative is a global community for responsible action and partnerships. Focused on projects that result in new knowledge and practice (GRLI, 2014).
LEAP!	http://www.leapintosustainability.org	Learning and exchange network of faculty from around the world, interested in developing the sustainability mindset. The network aims to leverage resources among participating faculty, expand outreach of new paradigm and accelerate change (Rimanoszy, 2014).
ONE (Organization and Natural Environment at AoM)	http://one.aom.org/	Division of the Academy of Management (AoM) which deals with academic research, dissemination, collaboration and networking in the area of the environment and management. Organizes special conference activities, streams and has a listserv (ONE, 2015).
Network for Business Sustainability (NBS) Canada	http://nbs.net/	Established in 2005, a network of international academic experts and business leaders that discusses sustainability issues in management practice and research. Connects with thousands of researchers and professionals worldwide who are interested in corporate social responsibility. Also has regional networks in Chile and South Africa (NBS, 2015).

Table 4. Main Resource Providers on Sustainable Education

Resource Providing Organizations	Website	Brief description
Aspen Institute's CasePlace.org	http://www.caseplace.org	A library of teaching resources designed primarily for business school faculty, but welcomes other users. The site was established in 2001. It aims to help faculty to incorporate environmental, social and ethical topics into teaching on business and management (CasePlace.org, 2015).
Greening of Industry Network Publications	http://www.greeningofindustry.org/publications/	Contains publications produced by members of the Greening of Industry Network that examine sustainability (GIN, 2014).
Giving Voice to Values (GVV)	http://www.babson.edu/Academics/teaching-research/gvv/Pages/home.aspx	Cross-disciplinary business curriculum and action-oriented pedagogical approach for developing skills, knowledge and commitment required to implement values-based leadership. Helps students to identify the ways to voice their values in the workplace. Giving Voice to Values was launched at Aspen Institute and now is housed at Babson College. The approach had been piloted by over 400 schools and organizations (Gentile, 2015).
UNESCO Education for Sustainable Development	http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/	UNESCO is a lead agency for the UN Decade of Education for Sustainable Development (2005-2014). Education for Sustainable Development concerned with incorporating key sustainable development issues into teaching and learning. It promotes participatory methods that motivate and empower learners to change their behavior and take action for sustainable development (UNESCO, 2015).

Box 1. United Nations Principles of Responsible Management Education

As institutions of higher education involved in the development of current and future managers we declare our willingness to progress in the implementation, within our institution, of the following Principles, starting with those that are more relevant to our capacities and mission. We will report on progress to all our stakeholders and exchange effective practices related to these principles with other academic institutions:

Purpose: We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy.

Values: We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact.

Method: We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership.

Research: We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value.

Partnership: We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges.

Dialogue: We will facilitate and support dialogue and debate among educators, students, business, government, consumers, media, civil society organizations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability.

We understand that our own organizational practices should serve as an example of the values and attitudes we convey to our students.

Source: UN PRME (2014)